

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER NO. R5-2009-0709
FOR
CONOCOPHILLIPS COMPANY, CONVENIENCE RETAILERS LLC
& TOWER ENERGY GROUP
671 G STREET, LINCOLN, PLACER COUNTY

This Order is issued to ConocoPhillips Company (ConocoPhillips), Convenience Retailers, LLC and Tower Energy Group (hereafter collectively referred to as Dischargers), based on provisions of California Water Code section 13304 and Health and Safety Code section 25296.10, which authorize the Central Valley Regional Water Quality Control Board (Central Valley Water Board) to issue a Cleanup and Abatement Order (Order), and California Water Code section 13267, which authorizes the Central Valley Water Board to require the submittal of technical reports.

The Executive Officer finds, with respect to the Dischargers' acts, or failure to act, the following:

PROPERTY OWNERSHIP AND OPERATIONS

1. ConocoPhillips is named as a Discharger because it owned and operated the underground storage tank (UST) system during the time petroleum constituents were discharged/released.
2. Convenience Retailers LLC is named as a Discharger because Placer County records show that Convenience Retailers LLC owned the property at 671 G Street (Placer County assessor parcel number 008-135-018-000) from 15 April 2008 to 17 April 2009, a site where an unauthorized release of hazardous substance from a UST system occurred.
3. Tower Energy Group is named as a Discharger because it is the current property owner and has control of the property where an unauthorized release of hazardous substance from a UST system occurred. Placer County records show that Tower Energy Group is the current property owner and that it took ownership of the property at 671 G Street on 17 April 2009.

BACKGROUND

4. In July 1986, a leak was discovered in the unleaded gasoline UST during a routine precision test.
5. To determine the source of the leak and re-test the UST, soil was excavated to expose the tank and its associated piping. Petroleum odors were noted within the excavation site and soil samples obtained from the excavation contained up to 6,200 mg/kg of total petroleum hydrocarbons (TPH), demonstrating that an unauthorized release of petroleum had occurred and that it had impacted soil beneath the site.
6. On 19 August 1986, three soil borings were advanced, and soil and groundwater samples collected from the borings confirmed that an unauthorized release had contaminated soil and polluted groundwater beneath the site.

7. Between August 1986 and November 1989, 10 groundwater monitoring wells (MW-1 through MW-10) and one extraction well (EW-1) were installed beneath the site in an effort to determine the nature and extent of the unauthorized release and to remove free phase product.
8. In March 1993, seven vapor extraction wells (VEW-1 through VEW-7) were installed and by March 1994 a soil vapor extraction (SVE) system was operating. Due to declining influent concentrations, the SVE system was shut down in March 1997.
9. In April 1999, the site's UST system, consisting of three 10,000-gallon tanks, was excavated and removed from the site along with 400 cubic yards of contaminated soil and 12,000 gallons of polluted groundwater. During the removal and relocation of the site's UST system, two vapor extraction wells were abandoned (VEW-4 and VEW-6), air sparge (AS) lines were run to four site wells (MW-1, MW-2, MW-3 and EW-4), and four horizontal sparge lines were installed within the former tank pit.
10. In January 2000, the site's modified SVE/AS remedial system was restarted. The system operated through March 2001, when it was shut down due to declining influent concentrations.
11. Between August and September 2005, five onsite oxygen injection wells (OS-1 and OS-3 through OS-6) were installed, and in 2006 three additional oxygen injection wells (OS-2, OS-7 and OS-8) were installed. Oxygen injections, which began in November 2005 and continued through June 2007, distributed 3,550 pounds of oxygen into the subsurface beneath the site.
12. In June 2008, seven shallow soil gas probes (SV-1 through SV-7) and six ozone injection wells (OS-9 through OS-14) were installed.
13. Although a network of ozone injection wells was installed, the Dischargers have failed to operate the approved ozone injection remedial system.
14. Although multiple attempts have been made to address the unauthorized release of petroleum hydrocarbons identified in soil, soil vapor and groundwater, remedial measures have failed to adequately mitigate the effects of the petroleum release.
15. Although not observed since 1998, monitoring wells MW-1, MW-2, MW-3 and EW-1 have all contained free phase product at some time in the past. Additionally, while free phase product has not been observed since 1998, hydrocarbon concentrations in EW-1 have been increasing since March 1999 and as of November 2008 were at the highest levels seen in eight years.
16. The table below shows the maximum concentrations of petroleum constituents reported in groundwater as of November 2008 and the water quality objectives (WQOs) for those constituents.

Constituent	Maximum Concentration (µg/L)	Water Quality Objectives (µg/L)
TPH as gasoline (TPH-g)	120,000	5 ¹
Benzene	19,000	1 ²
Ethylbenzene	4,100	30 ³
Toluene	24,000	40 ³
Xylenes	21,000	20 ³
Methyl Tertiary Butyl Ether (MtBE)	850	5 ⁴

1 - USEPA Health Advisory 2 - California Primary MCL 3 - USEPA Secondary MCL 4 - California Secondary MCL

These concentrations of petroleum constituents in groundwater are indicative of liquid phase hydrocarbons and constitute “waste” as defined in California Water Code section 13050. Although the petroleum constituent concentrations have decreased, they remain well above established WQOs and may extend an unknown distance downgradient from the site.

17. As shown by the Fourth Quarter 2008 groundwater sampling results presented in the following table, monitoring wells both on- and off-site continue to be polluted with petroleum hydrocarbons far above WQOs. Because the groundwater plume extends beyond the property boundary at concentrations above WQOs, additional investigation and cleanup is needed to protect water quality and human health.

Well	Location	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
EW-1	On-site	120,000	19,000	24,000	2,700	20,000	850
MW-1	On-site	27,000	13,000	120	1,700	720	380
MW-2	On-site	95,000	4,200	18,000	4,100	21,000	130
MW-3	On-site	4,900	170	20	260	350	59
MW-4	On-site	<50	<0.50	<0.50	<0.50	<1.0	<0.50
MW-5	~30 ft off-site	Not sampled since 2006					
MW-6	~100 ft off-site	<50	<0.50	<0.50	<0.50	<1.0	<0.50
MW-7	On-site	<50	3.4	<0.50	<0.50	<1.0	<0.50
MW-8	~10 ft off-site	3,000	980	32	110	110	360
MW-9	~20 ft off-site	Destroyed in 1995					
MW-10	On-site	680	88	6.4	50	58	38

Concentrations in µg/L
 TPH-g - Total Petroleum Hydrocarbons as Gasoline
 Off-site distances measured from site boundary

18. A sensitive receptor survey revealed that no supply wells are located within 2,000 feet of the site; however, both domestic and municipal supply wells are located in the City of Lincoln, and the City of Lincoln’s primary water source is groundwater. The closest surface water body to the site is the Auburn Ravine, located over 3,000 feet southeast.

AUTHORITY – LEGAL REQUIREMENTS

19. The Central Valley Region derives its authority to issue and enforce the legal requirements of this Order from California Law, Regulations, Policies, and Plans included in Attachment A, which is attached hereto and made part of this Order.
20. The constituents listed in Finding No. 16 and 17 are wastes as defined in California Water Code section 13050(d). The groundwater exceeds the WQOs for the constituents listed in Finding No. 16. Exceeding of applicable WQOs in the Basin Plan constitutes pollution as defined in California Water Code section 13050(l)(1).

DISCHARGER LIABILITY

21. As described in Findings 1 through 18, the Dischargers are subject to an order pursuant to California Water Code section 13304 because the Dischargers have caused or permitted, or threatened to cause or permit, waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and have created, or threatened to create, a condition of pollution or nuisance. The condition of pollution is a priority violation and issuance or adoption of a cleanup and abatement order pursuant to California Water Code section 13304 and Health and Safety Code section 25296.10 is appropriate and consistent with policies of the Central Valley Region.
22. This Order requires investigation and cleanup of the site in compliance with the California Water Code, the applicable Basin Plan, State Water Resources Control Board (State Water Board) Resolution No. 92-49, and other applicable Central Valley Region plans, policies, and regulations.
23. As described in Findings 1 through 18, the Dischargers are subject to an order pursuant to California Water Code section 13267 to submit technical reports because existing data and information about the site indicate that waste has been discharged, is discharging, or is suspected of discharging, at the property, which is or was owned and/or operated by the Dischargers named in this Order. The technical reports required by this Order are necessary to assure compliance with California Water Code section 13304 and Health and Safety Code section 25296.10, to adequately investigate and clean up the site to protect the beneficial uses of waters of the state, to protect against nuisance, and to protect human health and the environment.
24. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (CEQA) (Pub. Resources Code, section 21000 et seq.), pursuant to California Code of Regulations, title 14, section 15321(a)(2). The implementation of this Order is also an action to assure the restoration of natural resources and/or the environment and is exempt from the provisions of the CEQA, in accordance with California Code of Regulations, title 14 sections 15307 and 15308.

REQUIRED ACTIONS

IT IS HEREBY ORDERED that, pursuant to California Water Code sections 13304 and 13267, and Health and Safety Code section 25296.10, ConocoPhillips Company, Convenience Retailers LLC, and Tower Energy Group shall:

1. Investigate the discharges of waste, clean up the waste, and abate the effects of the waste, forthwith, resulting from activities at 671 G Street, Lincoln, Placer County, in conformance with State Water Board Resolution No. 92-49 *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304* and with the Central Valley Region's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (in particular the Policies and Plans listed within the Control Action Considerations portion of Chapter IV). "Forthwith" means as soon as is reasonably possible. Compliance with this requirement shall include, but not be limited to, completing the tasks listed below.
2. Complete all work and reports in accordance with *Appendix A - Reports, Tri-Regional Recommendations for Preliminary Investigation and Evaluation of Underground Storage Tank Sites* (Appendix A - Reports), which is attached hereto and made a part of this Order. Complete all work under all permits required by State, County, and/or Local agencies.
3. If the Dischargers disagree with the site history as summarized in Findings 1-18, and/or believe that other parties share responsibility for these discharges, they must submit a report by **31 July 2009**, which, to the best of the Dischargers' abilities, documents the site's history since the tanks were installed, including a chronology of the site's ownership and operator history, any evidence detailing the time and origin of the release, and the fee title owner. Information in this report may be used to identify additional dischargers who may be added to this or future orders.
4. Submit a **Work Plan** by **15 August 2009** to locate and restore site well MW-5 and to replace former off-site well MW-9.
5. Submit a **Remedial System Startup Report** by **28 August 2009** documenting initial background groundwater and soil vapor sampling results and the startup and continued operation of the proposed, approved, and installed ozone sparging system.
6. Submit the results of all groundwater and soil vapor sampling data collected during the first three months of system operation, along with all field measurements, to Central Valley Water Board staff as soon as available. This includes initial system startup data, weekly sampling data collected during the first month of system operation, and monthly sampling data collected thereafter from wells MW-1 through MW-4, MW-7, MW-8, MW-10, SV-3, SV-5, SV-6 & SV-7.
7. If adverse effects to waters of the state or human health are noted during system startup that can be attributed to the operation of the site's ozone system, the system shall be shut down and Central Valley Water Board staff notified immediately.

8. Submit **Remedial Status Reports**, monthly for the first three months after system startup and quarterly thereafter. The first monthly Remedial Status Report is due 45 days after system startup, but no later than **15 October 2009**. The required Remedial Status Reports are necessary to monitoring the effectiveness of the remedial system and its impact on the subsurface environment. Subsequently, each Remedial Status Reports shall also include the results of all shallow soil vapor and hexavalent chromium groundwater sampling. Remedial Status Reports are to be submitted during operation of the remedial system and for two quarter following system shutdown.
9. Submit a **Remedial System Progress Report** 105 days after system startup but no later than **14 December 2009**. The report is to document all sampling associated with the pilot test and include a thorough evaluation of the test. The report must also contain recommendations regarding site conditions, the operation of the ozone sparging system, and its continued use. If necessary, the report should include a proposal to optimize the effectiveness of the remedial system and/or to reduce the generation of any observed adverse byproducts. This report may be combined with the third Remedial Status Report (Order 8 above).
10. Conduct semi-annual groundwater and soil vapor monitoring and submit **Semi-Annual Monitoring Reports**. Semi-Annual Monitoring is to occur during the second and fourth quarters of each calendar year, and the next sampling event is to occur during the fourth quarter 2009 with the corresponding monitoring report due by **15 January 2010**. All future Semi-Annual Monitoring Reports shall be submitted by the 15th day of the month following the end of the calendar quarter in which the samples are collected (i.e., by 15 July and 15 January). Semi-Annual Monitoring Reports shall include the results of all soil, soil vapor and groundwater samples analyzed to date. While the wells to be sampled during each monitoring event may be modified by staff of the Central Valley Region, all collected groundwater samples must be analyzed for the constituents and at their corresponding method reporting limits as listed in the table below.

Groundwater Analytes			
TPH-g	50 µg/l	Toluene	0.5 µg/l
MTBE	0.5 µg/l	Ethylbenzene	0.5 µg/l
Benzene	0.5 µg/l	Total Xylenes	1.0 µg/l

TPH-g - Total Petroleum Hydrocarbons as Gasoline

Remedial Status Reports and Semi-Annual Monitoring Reports should be combined and completed as a single report when both semi-annual and remedial system sampling occur during the same quarter.

11. During the fourth Quarter 2009 semi-annual sampling event, analyze groundwater samples collected from all site wells for TPH as diesel (TPH-d), methanol, ethanol, tertiary butyl alcohol (TBA), tertiary amyl methyl ether (TAME), di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), ethylene dibromide (EDB) and 1,2- dichloroethane (1,2-DCA) in addition the standard analytical suite as outline in item 8 above. If any of these additional constituents are detected above established water quality objectives, they are to be incorporated into the semi-annual monitoring program.

12. Submit a **Human Health Risk Assessment (HHRA)** by **26 February 2010**. The HHRA shall evaluate the risk that the entire residual constituent mass remaining in soil and soil vapor beneath the site, may pose to human health. The assessment shall evaluate Baseline Carcinogenic Risk and Baseline Toxic Effects for both onsite commercial and offsite residential receptors. The HHRA shall evaluate dermal absorption, ingestion, and volatilization to indoor air exposure scenarios.

All constituent concentrations detected in soil within the top 10 feet of ground surface shall be considered when evaluating dermal absorption and ingestion, and soil vapor data shall be considered when evaluating volatilization to indoor air. The Dischargers shall use a one-in-a-million target risk level and a target hazard index of one. Additionally, the Unit Risk Factors and/or Slope Factors for all constituents incorporated into the HHRA must comply with the values listed in the Office of Environmental Health Hazard Assessment's (OEHHA's) Toxicity Criteria Database. TPH-g detections shall be incorporated into the HHRA, and the assessment should be completed so that it can be adjusted easily and inexpensively as new site data become available.

13. Submit a **Remedial Strategy Evaluation Report** nine months after system startup, but no later than **4 June 2010**. The Remedial Strategy Evaluation Report shall include a thorough evaluation of the ongoing remedial effort and shall contain recommendations regarding the site's operating ozone sparging remedial system and the remedial strategy to achieve site cleanup. This report may be incorporated into the Fourth Quarter 2009 monitoring report.

Required Report Submittal Schedule	
Required Report/Task	Due Date
Work Plan to: 1) Locate and restore site well MW-5 2) Replace former offsite well MW-9	15 August 2009
Remedial System Startup Report	28 August 2009
First Remedial Status Report	45 days after system startup, but no later than 15 October 2009
Remedial System Progress Report	105 days after system startup but no later than 14 December 2009
First Semi-Annual Monitoring Reports	15 January 2010
Human Health Risk Assessment	26 February 2010
Remedial Strategy Evaluation Report	9 months after system startup, but no later than 4 June 2010

GENERAL REQUIREMENTS

The General Requirements are included in Attachment A of this Order.

If the Dischargers are unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule submitted pursuant to this Order, the Dischargers may request, in writing, an extension of the time specified. The extension request shall include justification for the delay. Any extension request shall be submitted as soon as the situation is recognized and no later than the compliance date. An extension may be granted by revision of this Order or by a letter from the Executive Officer. Extension requests not approved in writing by the Executive Officer with reference to this Order are denied.

If, in the opinion of the Executive Officer, the Dischargers fail to comply with the provisions of this Order, the Executive Officer may refer this matter to the Attorney General for judicial enforcement or may issue a complaint for administrative civil liability. Failure to comply with this Order may result in the assessment of an Administrative Civil Liability of up to \$10,000 per violation per day pursuant to the California Water Code sections 13268, 13350 and/or 13385. The Central Valley Water Board reserves its right to take any enforcement actions authorized by law.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Board to review the action in accordance with CWC section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality
or will be provided upon request.

This Order is effective upon the date of signature.

Original signed by

PAMELA C. CREEDON
Executive Officer

7/6/2009

(Date)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

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FOR
CONOCOPHILLIPS COMPANY, CONVENIENCE RETAILERS LLC
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671 G STREET, LINCOLN, PLACER COUNTY

ATTACHMENT A
AUTHORITY – LEGAL REQUIREMENTS
and
GENERAL REQUIREMENTS

AUTHORITY – LEGAL REQUIREMENTS

The following laws and regulations authorize the Central Valley Regional Water Quality Control Board (Central Valley Water Board) to issue Cleanup and Abatement Orders (CAOs) to persons who have participated in actions that have led to actual or threatened water contamination.

I. Legal Authority over Responsible Parties/Dischargers: These laws and regulations give the Central Valley Water Board the legal authority to hold persons named in the accompanying Order responsible for cleanup activities.

1. Section 13304(a) of the California Water Code states, in relevant part, that:

Any person who has discharged or discharges waste into waters of the state in violation of any waste discharge requirements or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including but not limited to, overseeing cleanup and abatement efforts.

2. Section 13050(d) of the California Water Code defines “waste” to include:

... sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

3. Sections 13050(l) and 13050(m) define “pollution” and “nuisance,” respectively, as follows:

(1) “Pollution” means an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following:

- (A) The waters for beneficial uses.
- (B) Facilities which serve these beneficial uses.

(2) "Pollution" may include "contamination."

"Nuisance" means anything which meets all of the following requirements:

- (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
- (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
- (3) Occurs during, or as a result of, the treatment or disposal of wastes.

4. California Code of Regulations, title 23, section 2720, defines who is a "responsible party"¹ for the purposes of cleaning up contamination resulting from a leaking underground storage tank. This section states, in relevant part:

"Responsible party" means one or more of the following:

- (1) Any person who owns or operates an underground storage tank used for the storage of any hazardous substance;
- (2) In the case of any underground storage tank no longer in use, any person who owned or operated the underground storage tank immediately before the discontinuation of its use;
- (3) Any owner of property where an unauthorized release of a hazardous substance from an underground storage tank has occurred; and
- (4) Any person who had or has control over a underground storage tank at the time of or following an unauthorized release of a hazardous substance.

5. California Code of Regulations, title 23, section 2720, specifies that Responsible Parties shall comply with all California Water Code provisions and any Orders issued by a regional water board when an unauthorized release from an underground storage tank has occurred.

II. Legal Authority to Require Cleanup Activities/Corrective Actions: These laws and regulations describe the actions that may be required of persons named in Cleanup and Abatement Orders.

1. **General Cleanup Activities**

i. Section 13304(a) of the California Water Code states, in relevant part, that:

[Responsible parties] shall upon order of the regional board clean up the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including but not limited to, overseeing cleanup and abatement efforts.

¹ For the purposes of a cleanup at a site contaminated by a leaking underground storage tank, Responsible Parties may also be referred to as Dischargers.

ii. Section 25296.10(a) of the Health and Safety Code provides that:

Each owner, operator, or other responsible party shall take corrective action in response to an unauthorized release in compliance with this chapter and the regulations adopted pursuant to Section 25299.3.

2. **Replacement Water:** The Central Valley Water Board may require responsible parties to provide replacement water to others who have had their water supplies affected by pollutants.

i. Section 13304(a) of the California Water Code states, in relevant part, that:

A cleanup and abatement order issued by the state board or a regional board may require the provision of, or payment for, uninterrupted replacement water service, which may include wellhead treatment, to each affected public water supplier or private well owner.

ii. Section 13304(f) of the California Water Code states that:

Replacement water provided pursuant to subdivision (a) shall meet all applicable federal, state and local drinking water standards and shall have comparable quality to that pumped by the public water system or private well owner prior to the discharge of waste.

III. Legal Authority for Cost Reimbursement: The Central Valley Water Board has the legal right to require responsible parties to pay for cleanup actions undertaken by the state and to require payment of oversight costs pursuant to California Water Code section 13304(c)(1), which states that:

If waste is cleaned up or the effects of the waste are abated, or, in the case of threatened pollution or nuisance, other necessary remedial action is taken by any government agency, the person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that government agency to the extent of the reasonable costs actually incurred in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial actions.

IV. Legal Authority to Require the Submittal of Technical Reports: The Central Valley Water Board has broad authority to require responsible parties to submit technical reports, which may include workplans, the analytical results of investigation activities, and the site history for contaminated properties.

1. Section 13267(a) of the California Water Code states, in relevant part, that:

A regional board, in establishing or reviewing any water quality control plan or waste discharge requirements, or in connection with any action relating to any plan or requirement authorized by this division, may investigate the quality of any waters of the state within its region.

2. Section 13267(b)(1) of the California Water Code states that:

In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

3. Section 25296.10(c)(1) of the Health and Safety Code provides that:

...the owner, operator, or other responsible party shall prepare a work plan that details the corrective action the owner, operator, or other responsible party shall take to comply with the requirements of subdivisions (a) and (b) and the corrective action regulations adopted pursuant to Section 25299.3.

These code sections allow the Central Valley Water Board to impose the obligation to submit technical reports on responsible parties. In the main body of the Cleanup and Abatement Order, you can find the reasons why the Central Valley Water Board is requiring you to submit these reports, as well as a justification for requiring the reports that balances the need for the reports against the burden placed upon you for submitting the reports. If the Cleanup and Abatement Order involves the cleanup of toxic substances, including carcinogenic substances, then the need for these reports usually is very high.

V. GeoTracker: GeoTracker is a database that contains information about cleanup sites throughout the State. Under California Code of Regulations (CCR), title 23, sections 3890-3895, responsible parties must submit electronic laboratory analytical data (i.e., soil, soil gas, or water chemical analysis) and locational data (i.e., location and elevation of groundwater monitoring wells), to the State GeoTracker database. The regulations and other background information are available at <http://geotracker.waterboards.ca.gov>.

VI. Basin Plan: The Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, 4th Edition* (hereafter Basin Plan) designates beneficial uses of the waters of the State, establishes water quality objectives (WQOs) to protect these uses, and establishes implementation policies to implement WQOs. The beneficial uses of the groundwater beneath sites governed by this attachment are domestic, municipal, industrial, and agricultural supply.

VII. Policies: The following policies contain provisions that must be adhered to by responsible parties conducting cleanup activities.

1. The State Water Resources Control Board (hereafter State Board) has adopted Resolution No. 92-49, the *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*. This Policy sets forth the policies and procedures to be used during an investigation or cleanup of a polluted site and requires that cleanup levels be consistent with State Board Resolution 68-16, the *Statement of Policy With Respect to Maintaining High Quality of Waters in California*. Resolution 92-49 and the Water Board's Water Quality Control Plan for the Sacramento and San Joaquin River Basins (4th Ed) (Basin Plan) establish the cleanup levels to be achieved. Resolution 92-49 requires the waste to be cleaned up to background, or if that is not reasonable, to an alternative level that is the most stringent level that is economically and technologically feasible in accordance with California Code of Regulations, title 23, section 2550.4. Any alternative cleanup level to background must (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Board.
2. Chapter IV of the Basin Plan contains the *Policy for Investigation and Cleanup of Contaminated Sites*, which describes the Central Valley Water Board's policy for managing contaminated sites. This Policy is based on Water Code Sections 13000 and 13304, the Title 27 CCR, Division 2, Subdivision 1 regulations, and State Water Board Resolution Nos. 68-16 and 92-49. The Policy includes site investigation, source removal or containment, information required to be submitted for consideration in establishing cleanup levels, and the bases for establishment of soil and groundwater cleanup levels.
3. The State Board adopted the *Water Quality Enforcement Policy*, which states in part: "*At a minimum, cleanup levels must be sufficiently stringent to fully support beneficial uses, unless the RWQCB allows a containment zone. In the interim, and if restoration of background water quality cannot be achieved, the CAO should require the discharger(s) to abate the effects of the discharge. Abatement activities may include the provision of alternate water supplies.*" (*Enforcement Policy, p. 14.*)

VIII. Specific Constituents of Concern: The following provisions are applicable to all cleanups involving the spill of gasoline constituents.

1. The wastes detected at the site are not naturally occurring, and some, one of which is benzene, are known human carcinogens. Pollution of groundwater with these wastes impairs or threatens to impair the beneficial uses of the groundwater.

2. Water Quality Objectives (WQOs) listed in the Basin Plan include numeric WQOs, e.g., state drinking water maximum contaminant levels (MCLs), and narrative WQOs, including the narrative toxicity objective and the narrative tastes and odors objective for surface and groundwater. Chapter IV of the Basin Plan contains the *Policy for Application of Water Quality Objectives*, which provides that “[w]here compliance with narrative objectives is required (i.e., where the objectives are applicable to protect specified beneficial uses), the Central Valley Water Board will, on a case-by-case basis, adopt numerical limitations in orders which will implement the narrative objectives.” The numerical limits for the constituents of concern listed in the following table implement the Basin Plan WQOs.

Constituent	Limits	WQO	Reference
Total Petroleum Hydrocarbons as Gasoline	5 µg/l	Health	USEPA Health Advisory
Benzene	1 µg/l	Toxicity	California Primary MCL
Toluene	40 µg/l	Taste and Odor	USEPA Secondary MCL
Ethylbenzene	30 µg/l	Taste and Odor	USEPA Secondary MCL
Xylene	20 µg/l	Taste and Odor	USEPA Secondary MCL
TBA	12 µg/l	Toxicity	California Notification Level (DPA)
MTBE	5 µg/l	Taste and Odor	USEPA Secondary MCL

ug/L= micrograms per liter

GENERAL REQUIREMENTS

The following requirements are applicable for all sites in which the Central Valley Water Board issues Cleanup and Abatement Orders addressing the cleanup of gasoline constituents. If a Responsible Party subject to a Cleanup and Abatement Order fails to comply with the provisions of this Order, the Assistant Executive Officer may refer this matter to the Attorney General for judicial enforcement and/or may issue a complaint imposing administrative civil liability.

1. As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, Responsible Parties must have appropriate reports prepared by, or under the supervision of, a registered professional engineer or geologist and signed, and where necessary stamped, by the registered professional. All technical reports submitted by the Responsible Parties shall include a cover letter signed by the responsible parties, or authorized representatives, certifying under penalty of law that the signer has examined and is familiar with the report and that to their knowledge, the report is true, complete, and accurate. The Responsible Parties shall also state if they agree with any recommendations or proposals and whether they approved implementation of said proposals.

2. Upon startup of any remediation system(s), Responsible Parties must operate the remediation system(s) continuously, except for periodic and required maintenance or unpreventable equipment failure. The Responsible Parties shall notify the Central Valley Water Board within 24 hours of any unscheduled shutdown of the remediation system(s) that lasts longer than 48 hours. This notification shall include the cause of the shutdown and the corrective action taken (or proposed to be taken) to restart the system. Any interruptions in the operation of the remediation system(s), other than for maintenance, emergencies, or equipment failure, without prior approval from Central Valley Water Board staff or without notifying the Central Valley Water Board within the specified time is a violation of this Order. Within 7 working days of a shutdown, the Responsible Parties shall submit a Technical Report containing at a minimum, but not limited to the following information:
 - Times and dates equipment were not working.
 - Cause of shutdown.
 - If not already restarted, a time schedule for restarting the equipment.
 - A Cleanup Assurance Plan to ensure that similar shutdowns do not reoccur. Proposed Cleanup Assurance Plans are to be completed within 30 days of the system shutdown.
3. Responsible Parties must notify Central Valley Water Board staff at least three working days prior to any onsite work, testing, or sampling that pertains to environmental remediation and investigation and is not routine monitoring, maintenance, or inspection.
4. Responsible Parties must obtain all local and state permits and access agreements necessary to fulfill the requirements of this Order prior to beginning work.
5. Responsible Parties must continue any remediation or monitoring activities until the Assistant Executive Officer determines that sufficient cleanup has been accomplished to fully comply with this Order and this Order has been either amended or rescinded in writing.
6. Responsible Parties must optimize remedial systems as needed to improve system efficiency, operating time, and/or waste removal rates, and report on the effectiveness of the optimization in the quarterly reports.
7. Responsible Parties must maintain a sufficient number of monitoring wells to completely define and encompass the waste plume(s). If groundwater monitoring indicates the waste in groundwater has migrated beyond laterally or vertically defined limits during the quarter, then the quarterly monitoring reports must include a work plan and schedule, with work to begin within thirty days of Central Valley Water Board staff approval, to define the new plume limits.

8. Electronic copies of all reports and analytical results are to be submitted over the Internet to the State Water Board Geographic Environmental Information Management System database (GeoTracker) at <http://geotracker.waterboards.ca.gov>.

Electronic copies are due to GeoTracker concurrent with the corresponding hard copy deliver to this office. Electronic submittals shall comply with GeoTracker standards and procedures as specified on the State Board's web site. Responsible Parties must submit all laboratory data obtained after September 1, 2001 to GeoTracker database. Responsible Parties must also submit locational data obtained after January 1, 2002 for all groundwater monitoring wells (i.e., latitude, longitude, and elevation survey data), groundwater well information (e.g., depth to free product, monitoring well status), and a site map.

9. If the Responsible Parties are unable to perform any activity or submit any document in compliance with the schedule set forth herein, or in compliance with any work schedule submitted pursuant to this Order and approved by the Assistant Executive Officer, the Responsible Parties may request, in writing, an extension of the time specified. The extension request shall include justification for the delay. Any extension request shall be submitted as soon as the situation is recognized and no later than the compliance date. An extension may be granted by revision of this Order or by a letter from the Assistant Executive Officer. Extension requests not approved in writing by the Assistant Executive Officer with reference to this Order are denied.
10. All work and directives referenced in this Order are required regardless of whether or not the UST Cleanup Fund approves the work for reimbursement.